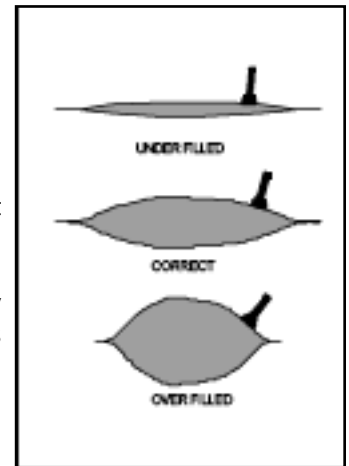


Collection of Gas Samples Using a Hand Pump and Gas Bags

1. Attach the inlet tubing of the hand pump provided (black end) to the monitoring probe or sampling point and pump for a sufficient length of time to purge the system of air. The purge gas may be vented to the atmosphere.
2. Remove a gas bag from its shipping container and while pumping slowly, insert the male luer fitting on the outlet of the hand pump (clear end) into the luer-fit valve on the gas bag with a slight twisting motion. Inserting the male luer fitting depresses the valve stem and opens the valve. The tapered design of this fitting allows for a leak-tight friction fit.
3. The bag can be filled with about twenty squeezes of the bulb. To allow space for expansion during shipment, the bag should only be filled to about 2/3 of capacity. The bag is properly filled when it is about 1 1/2 inches thick, as shown in the drawing.
4. Once the bag is filled, remove the fitting from the bag (be careful because if the fitting is pressed into the valve too tightly, the top of the valve can separate from the main valve body when attempting to remove the fitting). Although these bags are durable, they can be damaged if not handled properly. Be careful not to crease or puncture the bags.
5. Record the pertinent information on the tag attached to the bag and on the chain of custody form provided and return the bag to the shipping container in which it was received. Samples should be shipped to the laboratory for analysis as soon as possible. If the samples are suspected to be flammable (>5% methane) they must be identified as hazardous and shipped according to the enclosed shipping instructions.



In preparing the sampling equipment described above we have tried to provide the user with the equipment and instructions necessary for the safe collection of gas samples under normal conditions. These have been prepared assuming that they will be used by someone who is familiar with the collection of natural gas samples and is fully aware of standard safety procedures and precautions. Isotech is not responsible for accidents resulting from improper use of this equipment or from use of unsafe practices.